

THE SCIENCE OF CREATIVITY

by John Sisko

Marc Fields, at the age of twenty-seven, created his business The Compleat Sculptor in 1995. At the time of its conception, his enterprise was intended to supply the basic materials for sculptors, such as clay, stone, and wood, as well as the tools needed to directly work on those materials. He had understood that there was a need in the supply chain, because his mother, Ailene Fields, is a working sculptor and, even in New York City, she and her peers had struggled to find a consistent and reliable supply of the tools and materials they needed to pursue their art. If there was a need in New York City, Marc concluded, the need must be much greater nationally.

Largely because of his mother, Marc had a long history personally and professionally on the periphery of the world of professional sculptors: personally, as a friend and advocate of many sculptors, and professionally, because for a time, he owned and operated a business that moved and installed artworks. He learned the business from the broad hands-on perspective of a working sculptor and as part of their community.

His own education and early professional ambitions were more in line with his father, David Fields, a practicing physician. Marc studied and worked as a marine ecologist and researcher, and later earned a degree in biopsychology from New York University. He is, by nature and training, a scientist and a researcher. Just



as he is a product of the shared DNA of his parents, he is also a hybrid of his parents' two very different worlds, and in bridging those, the natural outcome is his business, the Compleat Sculptor.

Marc understands that the sculptural process is multifaceted and complex, whether it involves creating work in traditional media such as cast metal, ceramic, stone, or wood, or in newer materials such as polymers, composite materials or innovative glass. There are many steps, and each presents the contemporary sculptor with many decisions because of the proliferation of available tools, materials, and processes at every level. It is impossible for individual sculptors to devote themselves to

their craft and stay on top of all the technical and material advances and compatibility of materials. Not all are trained scientists, nor should they have to be.

Marc's scientific background and natural curiosity enable him to understand and communicate to his clients the materials and processes that will yield optimum results. Part of his knowledge base derives from experience

with failed attempts, both others as well as his own. One example is a call he received from a sculptor who was in the process of making a large flat mold out of a two-part silicone material. The silicone was not setting up in certain areas; these areas were all circular and in groups of five. Marc determined that the latex gloves worn by the sculptor's assistants, whose





fingers were touching the silicone, was causing the problem. Latex, because it contains ammonia, may inhibit the setting of silicone mold materials. They were able to cut out the affected areas and fill them with new material. Marc has also been called upon to rescue models trapped in body molds when the artist failed to use Vaseline or some other release material between skin and plaster.

In addition to blending the artistic with the technological, Marc also must bridge the gap between diverse creative disciplines. Because the rapidly expanding technologies, tools, materials, and processes useful for sculptors are also useful to many other disciplines, The Compleat Sculptor has expanded its services into other fields. One is the restoration and conservation of sculpture as well as other highly valued three-dimensional objects. In the film and theater industry, creating sets involves using many of the same materials and processes as the sculptor uses, but at a larger scale and more frantic pace; a movie or theater set can be viewed as one large and dynamic sculptural project built by a team of artisans in the same way that monumental projects such as the *Lincoln Memorial* or

Opposite page, top to bottom: Marc Fields demonstrating lime-stone cutting; Hand casts from a body-casting seminar. On this page, clockwise from top: Bronze pour at William Paterson University; Body cast; Stone carving class; View of The Compleat Sculptor store; Store demonstration with Wendy Froud.



Photos: Courtesy of The Compleat Sculptor.



the *Statue of Liberty* would have been constructed in the past. Recently, The Compleat Sculptor has become involved in helping with product prototyping for a wide variety of industries and the reproductions of architectural components, such as bricks, architectural details, or decorative elements that might need to be replaced in a restoration or used in a new construction.

As a teacher, Marc began his work educating people on marine ecology, and that work continues in the technology of art. He has lectured on materials and processes at institutions such as Parsons The New School for Design, New York Academy of Art, Pratt Institute, New York University, and the Smithsonian. He leads workshops nationally at sculpture conferences, and has consulted to the film industry on accuracy of sets as well as mold materials to produce those same sets. The Compleat Sculptor also runs ongoing classes and workshops at their facility in New York City to sharpen sculptor's skills and knowledge. Informally, he shares his knowledge daily with his clients and crew, and they in turn learn from the experience practicing sculptors share with them. Through education, The Compleat Sculptor is building a community of like-minded people in New York City and nationwide.



In the past, the refinement of raw materials and processes and even the production of the tools were all part of the studio experience, and the artist or his/her assistants would labor at those tasks. Modern industry and new innovations in technology have liberated the contemporary sculptor from many of those tasks, thus allowing focus to be placed more on creativity, but the burden has shifted to the sculptor to make careful decisions among the vast range of choices. Marc sees his scientific / technologically focused institution as the twenty-first century version of the sculptor's assistant.

The Compleat Sculptor is becoming a community center where artists can wander among materials and tools; they can imagine new works inside the rough profiles of stone or wood and the tools needed to realize their emergence. It is also a place that brings people together where they can talk to one another professionally, share in each other's experiences, and contribute to and learn from the expanding knowledge base of Marc and his staff.



John Sisko is a professional sculptor and Fellow of the National Sculpture Society; who has been awarded the Alex J. Ettl Grant and the Walter and Michael Lantz Price by the NSS. He has a B.A. in philosophy from the University of Washington, and his focus in writing is the function of the art image in culture.

On this page, top to bottom: Mold making and marble carving tools on display; Ailene Fields working on an enlargement; Marc Fields teaching at the Smithsonian.